

Appl. No. 09/773,627

AMENDED CLAIM SET:

1. (previously presented) A thermoplastic resin integrated structure, which comprises:

a structural member (A) molded from a resin composition (a) comprising 5-80% by weight of polyacetal resin (a-1) and 20-95% by weight of at least one resin (a-2) selected from the group consisting of polyolefin resin, olefinic elastomer and hydrogenated butadienic elastomer;

a structural member (B) molded from thermoplastic resin (b); and
a structural member (C) consisting essentially of polyacetal resin (c), and includes at least one structure of structural member (C) - structural member (A) - structural member (B) as integrated together in this order, wherein the structural member (A) and the structural member (B) are integrated together by welding.

2. (cancelled).

3. (previously presented) A thermoplastic resin integrated structure according to claim 1, wherein the structural member (A) is a laminate composed of at least two layers each molded from the resin compositions (a), which are different from each other in the composition.

4. (previously presented) A thermoplastic resin integrated structure according to Claim 3, wherein content of polyacetal resin (a-1) in the layer in contact with the structural member (C) is larger than that of polyacetal resin (a-1) in the layer in contact with the structural member (B).

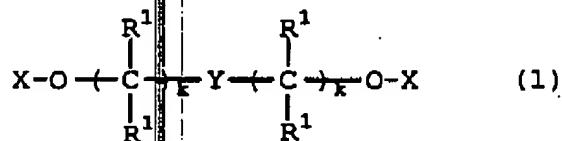
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5. (original) A thermoplastic resin integrated structure according to Claim 1, wherein the polyacetal resin (a-1) is a polyacetal copolymer having hydroxyalkyl groups at the molecule terminals and a hydroxyalkyl group terminal concentration of not less than 5×10^{-5} mole per mole of oxymethylene units.

6. (original) A thermoplastic resin integrated structure according to Claim 1, wherein the polyacetal resin (a-1) comprises a polyacetal copolymer obtained by using water or an aliphatic alcohol having not more than 10 carbon atoms as a chain transfer agent, or together with formal, if required.

7. (original) A thermoplastic resin integrated structure according to Claim 1, the polyacetal resin (a-1) comprises a polyacetal block copolymer obtained by copolymerizing cyclic acetal with cyclic ether and/or cyclic formal, using a polymer having at least one hydroxyl group and a molecular weight of 500-10,000 as a chain transfer agent.

8. (original) A thermoplastic resin integrated structure according to any one of Claims 1-7, wherein the polyacetal resin (a-1) comprises a polyacetal block copolymer having a number average molecular weight of 10,000-500,000, which comprises polyacetal segments (X) and a hydrogenated polybutadiene segment (Y) having a number average molecular weight of 500-10,000, hydroxy-alkylated at both ends, represented by the following formula (1):

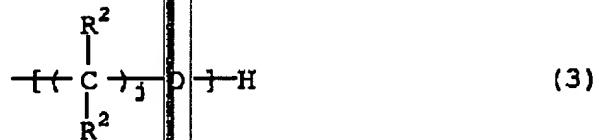


[where X comprises 95-99.9 mol.% of oxymethylene units and 0.1-5 mol.% of oxyalkylene units represented by the following formula (2):

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(where R^2 is independently selected from the group consisting of hydrogen, an alkyl group, a substituted alkyl group, an aryl group and a substituted aryl group and j is an integer selected from 2 to 6), and the terminal groups are polyacetal copolymer residues having a structure represented by the following formula (3):



(where R^2 and j have the same meanings as defined above), Y is a hydrogenated polybutadiene containing 70-98 mol.% of 1,2 bonds and 2-30 mol.% of 1,4 bonds and having an iodine value of not more than 20g- I_2 /100g, R^1 is independently selected from the group consisting of hydrogen, an alkyl group, a substituted alkyl group, an aryl group and a substituted aryl group and k is an integer selected from 2 to 6, where two ks may be the same or different from each other].

9. (original) A thermoplastic resin integrated structure according to Claim 1, wherein the resin (a-2) is at least one resin selected from the group consisting of polyethylene homopolymer, polyethylene copolymer, block copolymer containing ethylene as the main component and ionomer.

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10. (original) A thermoglastic resin integrated structure according to Claim 1, wherein the resin (a-2) is a modified α -olefinic polymer.

11. (previously presented) A thermoplastic resin integrated structure according to Claim 1, wherein the resin (a-2) is a resin composition comprising:
at least one resin selected from the group consisting of polyethylene homopolymer, polyethylene copolymer, block copolymer containing ethylene as the main component and ionomer; and
at least one resin selected from the group consisting of modified α -olefinic polymers.

12. (previously presented) A thermoplastic resin integrated structure according to Claim 8, wherein the resin (a-2) is a resin composition comprising:
at least one resin selected from the group consisting of polyethylene homopolymer, polyethylene copolymer, block copolymer containing ethylene as the main component and ionomer; and
at least one resin selected from the group consisting of modified α -olefinic polymers.

13. (original) A thermoplastic resin integrated structure according to Claim 1, wherein the thermoplastic resin (b) is a polyolefin resin.

14. (previously presented) A thermoplastic resin integrated structure according to Claim 1, wherein the thermoplastic resin (b) is a resin selected from the group consisting of polyethylene homopolymer, polyethylene copolymer, block copolymer containing ethylene as the main component, ionomer and mixtures of at least two thereof.

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15. (previously presented) A thermoplastic resin integrated structure according to Claim 8, wherein the thermoplastic resin (b) is a resin selected from the group consisting of polyethylene homopolymer, polyethylene copolymer, block copolymer containing ethylene as the main component, ionomer and mixtures of at least two thereof.

16. (original) A thermoplastic resin integrated structure according to Claim 1, wherein the thermoplastic resin (b) is a modified α -olefinic polymer.

17. (original) A thermoplastic resin integrated structure according to Claim 1, wherein the thermoplastic resin (b) is a polyacetal resin.

18. (currently amended) A thermoplastic resin integrated structure according to Claim 1, ~~[[whe]]~~ wherein the thermoplastic resin (b) is a polyamide resin.

19. (cancelled).

20. (original) A thermoplastic resin integrated structure according to Claim 8, wherein the structural member (A) and the structural member (B) are integrated together by welding.

21. (original) A thermoplastic resin integrated structure according to Claim 1, wherein the structural member (A) and the structural member (B) are integrated together by a molding process selected from the group consisting of injection molding of different materials, resin insert injection molding, coextrusion molding of different materials and multilayer blow molding.

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22. (previously presented) A thermoplastic resin integrated structure according to Claim 1, wherein the structural members (C)-(A)-(B) are integrated together in this order by welding or a molding process selected from the group consisting of injection molding of different materials, resin insert injection molding, coextrusion molding of different materials and multilayer blow molding.

23. (original) Automobile parts made from the thermoplastic resin integrated structure according to Claim 8.

24. (original) Automobile fuel-tank-related parts made from the thermoplastic resin integrated structure according to Claim 8.

25. (previously presented) A method of integrating a structural member (B) molded from polyolefin resin and a structural member (C) consisting essentially of polyacetal resin, comprising using a structural member (A) molded from a resin composition (a) comprising 5-80% by weight of polyacetal resin (a-1) and 20-95% by weight of at least one resin (a-2) selected from the group consisting of polyolefin resin, olefinic elastomer and hydrogenated butadienic elastomer.

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